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(Attorneys for *Amici* Alex Cannara and Gene A. Nelson)

October 26, 2021

The Honorable William Alsup
United States District Court Judge, USDC for the Northern District of California

Re: *Amici* Request (1) to File Brief Regarding Suggested Questions For the
Court's Consideration Regarding PG&E's Practices Contributing to the Zogg and
Dixie Fires

Dear Honorable Judge Alsup:

Amici representing Alex Cannara and Gene Nelson, PG&E customers concerned about PG&E's poor public safety record, respectfully seek leave to submit this letter to the Court. This brief respectfully proposes the following recommendations: (1) *Amici* respectfully recommend a series of questions this Court may consider ordering PG&E to answer about PG&E's patterns of conduct in connection with the Zogg and Dixie Fires; (2) *Amici* recommend items for the PG&E monitor's examination and report; 3) and *Amici* recommend steps for this Court's consideration as a remedy to protect public safety and rehabilitate felon PG&E.

I. INTRODUCTION

This brief respectfully recommends: (1) questions this Court could order PG&E to answer regarding its practices and patterns of conduct that appear to have contributed to the Zogg and Dixie Fires; (2) items for the PG&E monitor's examination and report including examination of what PG&E has learned from incidents, near misses, and its switch to fast-trip faults in High Fire Threat Districts (HFTDs); and 3) steps for this Court's consideration as a remedy to protect public safety and rehabilitate felon PG&E. *Amici* respectfully suggest this

Court order PG&E to answer the following questions to create a factual foundation for orders to protect public safety and promote felon PG&E's rehabilitation.

II. SUGGESTED QUESTIONS REGARDING PG&E TREE INSPECTION, TRIMMING, AND REMOVAL PROTOCOLS

A. Shasta County's Indictment of PG&E for Conduct Leading to the Zogg Fire Including Failure to Remove the Tree of Concern Despite its Obvious Cavity and Marking by PG&E for Removal in 2018

The Shasta County District Attorney's Office filed a 31-count indictment against PG&E on September 24, 2021, including four counts of involuntary manslaughter and one count of recklessly causing a fire with great bodily injury. A copy of the indictment is attached as Exhibit A. The indictment attaches the Shasta County investigator's crime report including a description of the findings of the arborist retained by CalFire to determine the Zogg Fire's cause.

According to the Shasta County investigator's report, the "cause of the Zogg Fire was determined to be a gray pine falling in a southerly direction, striking the powerlines owned and operated by Pacific Gas & Electric Company (PG&E)."¹ "The tree had decay and a significant cavity at the base of the tree that would have predisposed it to a downward slope failure."² "The tree was over 80 years old and in 2019, and it had a 23° lean toward the power line."³ "Decay was observed in the center of the tree. The cavity and absence of supporting roots on the cavity side would have been visible from the sides and uphill, even if briefly viewed. The roots of the cavity are excessively large, which was evidence they had developed over a long period of high mechanical stress."⁴ A screen shot of the cavity in the base of the tree showing a CalFire investigator measuring the cavity is included in Attachment B from the story posted by Brandon

¹ The People of the State of California v. PG&E, No. 21-06622, Complaint-Criminal, Felony, Sept. 24, 2021 [hereinafter, *Shasta County Indictment Against PG&E*]; Shasta County District Attorney's Office Bureau of Investigation, Crime Report # 20GC0847AH1, Investigator, Alex Houston, Sept. 24, 2021, at 2 [hereinafter *Shasta County Crime Report*].

² *Shasta County Crime Report*, *supra* note 1, at 2.

³ *Id.*

⁴ *Id.* at 3.

Rittiman for ABC10.⁵ That attachment includes three photos posted by ABC 10 from the CalFire report showing the substantial four-foot tall cavity in the base of the tree of concern in the Zogg Fire.⁶

The Shasta County D.A.’s investigator’s report emphasizes that PG&E has statutory and regulatory duties to mitigate such risks by removing hazard trees.”⁷ Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard. CA Resources Code 4293. The report notes that “(p)ublicly available information demonstrated in 2018, PG&E marked the gray pine tree for removal that caused the Zogg Fire. The gray pine was not removed, and subsequent PG&E vegetation management patrols failed to mark or remove the tree.”⁸

PG&E’s Chief Executive Officer (CEO) Patti Poppe disputed the criminal indictment filed by Shasta County regarding the Zogg Fire. Ms. Poppe’s video and written message attributed PG&E’s failure to remove the tree that caused the Zogg Fire within two years of its marking to be removed to “professional differences” between arborists.⁹ She stated “(b)etween October 2018 and last year’s Zogg Fire: Two trained arborists walked this line and independent of one another determined the tree in question could stay.”¹⁰ She added “(a)rborists, specifically, are trained professionals and sometimes, just like doctors or architects, they can have professional differences. There will be debates about the facts around the tree that started the Zogg Fire. Professional debate in the service of doing what is right and continuously improving.”¹¹

⁵ Brandon Rittiman, *PG&E charged with 4 homicides, environmental crimes for allegedly starting Zogg Fire*, ABC 10 (Sept. 24, 2021), <https://www.abc10.com/article/news/local/wildfire/criminal-charges-pge-zogg-fire-deaths/103-86c106a5-d278-4dd8-abbd-a541741e391b>.

⁶ *Tree suspected of falling and starting the Zogg Fire*, ABC 10, <https://www.abc10.com/gallery/news/local/tree-suspected-of-falling-and-starting-the-zogg-fire/103-89cd3981-0b8a-4713-a05d-8bfl145e2a9a> (last visited Oct. 20, 2021).

⁷ *Shasta County Crime Report*, *supra* note 1, at 3.

⁸ *Id.*

⁹ PG&E, *PG&E Disputes Shasta County Criminal Charges Related to 2020 Zogg Fire*, PG&E CURRENTS, Sept. 24, 2021, <https://www.pgecurrents.com/2021/09/24/pge-disputes-shasta-county-criminal-charges-related-to-2020-zogg-fire/>.

¹⁰ *Id.*

¹¹ *Id.*

B. Suggested Questions Re: PG&E's Tree Inspection Process

Amici respectfully suggest this Court order PG&E to answer the following questions regarding its vegetation management and inspection process. *Amici* suggest this Court order PG&E to produce Ms. Poppe and make her available for questions from the parties and the Court to discuss the basis of her assertions attributing the Zogg fire to a professional difference of opinion and asking for her understanding about PG&E's inspection, vegetation management, fault trigger, and evaluation process:

- 1. What is PG&E's process for follow-up if and when a PG&E employee, contractor, or subcontractor designates vegetation to be trimmed or removed?**
 - a. To whom are such reports transmitted recommending vegetation trimming or removal?
 - b. Does PG&E require approval from a subsequent person after the initial designation for trimming and removal to initiate vegetation trimming or removal?
 - c. What standards or guidelines are given to the person or persons who have the authority to send or decline to send crews for trimming or removal?
- 2. For the tree that hit the line causing the Zogg Fire, why did PG&E not initiate removal after PG&E personnel, contractors, or subcontractors marked the tree for removal in 2018?**
 - a. What process, guidelines, or standards were followed in making that decision? Who determined that process or standards? Please provide any documentation regarding the process and standards from the determination that vegetation should be trimmed or removed to its execution.
 - b. Please provide the names and titles of the individual(s) who made the decision not to trim or remove the tree of interest in the Zogg Fire after it was marked for removal in 2018. Please provide the names and titles of the supervisors of

the people who made the decision not to remove the tree of interest in the Zogg Fire.

3. Ms. Poppe's video and statements contend that two arborists "walked this line" and independently decided the tree of concern in the Zogg Fire could stay.

- a. Please provide the names and titles of those arborists, their supervisors, and the name and title of the person at PG&E to whom they reported or transmitted their recommendations or reports.
- b. Did PG&E provide information to each of those two arborists regarding the precise location of all trees that had been previously marked for removal or trimming, but for which the work was not completed? Did PG&E provide information to each of the two arborists regarding the tree of concern in the Zogg fire? Did PG&E request each of those arborists to inspect the tree of concern in the Zogg fire to determine whether it should be trimmed, removed, or remain?
- c. Please provide all documentation regarding any communications to or from PG&E and its contractors or subcontractors and each of the two arborists PG&E used to walk and inspect the Girvan Line after the tree of concern in the Zogg Fire was marked to be removed or trimmed. Include all communications between PG&E's and its contractors or subcontractors and each of the two arborists prior to or following the review by the two arborists.
- d. Provide all documentation of any guidelines given to the arborists PG&E used to examine the Girvan Circuit.
 - i. Does PG&E provide guidance to the arborists and tree inspectors it uses regarding the number of trees or miles to be covered daily, the manner of tree inspection, or any standards for tree or vegetation management inspection?

- ii. Does the guidance for the Girvan Circuit's vegetation inspection differ from other circuits? Please provide any guidance that deviates from that used for the Girvan Circuit's vegetation inspection.
- e. Does PG&E provide any guidelines regarding how close arborists should get to inspect trees tall enough to hit its conductors or facilities? If so, please describe and provide copies to the Court of such guidelines.
 - i. Does PG&E instruct its arborists to walk the circumference of trees tall enough to hit its conductors or facilities?
 - ii. Does PG&E instruct its arborists to walk to the side of trees tall enough to hit its conductors or facilities?
- f. Provide the names and titles of each arborist who walked the Girvan Line between the Carr Fire and the Zogg Fire. Provide the names of each person who accompanied the two arborists in inspecting the Girvan Circuit near the tree of concern for the Zogg Fire after it was designated for removal in 2018.
- g. Provide detailed information about the manner in which the two arborists conducted their inspection of the tree that caused the Zogg Fire after it was designated for removal in 2018.
 - i. Did each arborist "walk the line" by walking in the easement under PG&E's conductors and facilities?
 - ii. Did each arborist walk near each tree line bordering PG&E's easement?
 - iii. How close did each of those two arborists get to the tree of concern from the Zogg Fire?
 - iv. Did each of the two arborists walk to the sides of the tree of concern that started the Zogg Fire?
 - v. Did each of the two arborists walk the circumference of the tree of concern that started the Zogg Fire or observe it from uphill?

- vi. Did either of the two arborists take any photographs or videos of the tree of concern in the Zogg Fire? If so, please produce them to the Court.
- vii. Did either of those two arborists make any notes regarding the tree of concern in the Zogg Fire? If so, please produce them to the Court.
- viii. If each of those two arborists did not walk close enough to the tree of concern to see the four-foot cavity at the base of the tree, then what was the basis for their opinion that the tree of concern in the Zogg Fire could stay?
- ix. If each of the two subsequent arborists walked close enough to the tree of concern to see the four-foot cavity in the tree's base, describe their reasoning for determining that the tree was safe enough to stay given that cavity's dimensions and likely cause, the tree's age, height, lean, species, and proximity to the line.
- h. Provide the cell phone location data for each of those two arborists for the days and times that each "walked the line" at the Girvan Circuit. Include geolocation data showing the route that the arborists used to walk the line.
- i. Provide a sworn statement from the two arborists and any persons who accompanied them during their inspection of the Girvan Line. The sworn statements should discuss:
 - i. How each of the arborists inspected the tree of concern for the Zogg Fire, including details of whether they walked around the sides or circumference of the tree of concern or viewed it from a distance—and if so from what distance.
 - ii. Each arborist's rationale for determining that the tree of concern could remain without trimming or removal, and whether that determination

took into account the four-foot cavity at the base of the tree, as well as the tree's age, lean, height, species, and the likely causes of that cavity.

- iii. The rationale by which each of the two arborists decided the tree of concern should remain when California Resources Code 4293 requires the removal of "[d]ead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard." Describe whether each of their determinations considered the four-foot cavity at the base of the tree of concern, in addition to the cavity's cause, the tree's height, lean, age, species, and distance from PG&E's facilities.

4. For the Tree of Concern in the Dixie Fire, describe the inspection process used to examine that tree.

- a. PG&E Dkt. 1444 states that a "PG&E arborist who reviewed the photographs taken on July 26, 2021 of the tree's roots observed that one of eight roots of the tree shows signs of internal rot, but without further inspection has not reached a conclusion, for example, as to why the tree failed or whether there were any visible, external indications. *See* PG&E Arborist Decl. (Ex. Y)." Jaxon van Derbeken's story for NBC Bay Area discusses dry rot affecting trees in many parts of Northern California including, per PG&E's declaration, the tree of concern in the Dixie Fire.¹²

¹² *See* Jaxon van Derbeken, *Massive Dixie Fire in Northern California Tied to Rotted Tree*, NBC BAY AREA, Sept. 7, 2021, <https://www.nbcbayarea.com/investigations/dixie-fire-tied-to-rotted-tree/2650306/>

- b. Did PG&E's arborists or vegetation managers inspect the base of the tree of concern for the Dixie Fire to determine whether there was fungus or dry rot infecting that tree?
- c. Did PG&E's arborists or vegetation managers inspect the sides or circumference of the tree of concern for the Dixie Fire?
- d. How close did PG&E's inspectors get to the tree of concern in the Dixie Fire?
- e. Did PG&E's arborists or vegetation managers rely on the presence of a green canopy or leaves to determine whether the tree of concern in the Dixie Fire should be removed?

III. SUGGESTED QUESTIONS REGARDING PG&E SYSTEMS FOR SIGNALING, ANALYZING, AND RESPONDING TO FAULTS

It appears that PG&E's systems did not provide the company with sufficiently detailed information about hazards that led to the Dixie and Zogg fires. For the Dixie Fire, PG&E's systems indicated there was a brief fault, likely a surge of amperage (amps) when the tree of concern hit the Bucks Circuit Line.

PGE stated in Dkt. 1408 at 2 that "[t]he contemporaneous records reflect that, at approximately 6:48 a.m. on July 13, 2021, a line recloser at the Bucks Creek substation for the Bucks Creek 1101 Line recorded momentary current levels on two of the three phases in excess of the Minimum To Trip ('MTT')." See Dkt.1474, p. 12, lines 7-14. PG&E's settings did not trip off the system to deenergize the line. Neither did PG&E receive information that a tree hit the line until a Troubleman confirmed that fact nearly ten hours later. Below are respectfully recommend inquiries *Amici* suggest the Court order PG&E to answer about its fault signals, communications gaps, and their relationship to public safety:

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A. PG&E Fault Signals Including Blown Fuse Signals

1. What were the current levels recorded in excess of MTT prior to the Dixie Fire?
2. Explain PG&E's understanding of the significance of the current in excess of MTT on *two of the three phases* (emphasis added). Is the excess on two phases consistent with two blown fuses?
3. After the fault event at 6:48 a.m. were any other recordings made or received of current levels in excess of MTT?
4. When a PG&E fuse trips, does it send any signal independent of a fault event?
5. Does PG&E's SCADA system indicate blown fuses?
6. What, if anything, has PG&E done to increase fault signal indicators in its distribution or transmission circuits since the Dixie Fire to indicate issues such as a tree or vegetation hitting or remaining in contact with a line?
 - a. Has PG&E adjusted its systems to receive signals that a weighty item such as a tree limb or a tree has hit the line?
 - b. Does PG&E plan to make such adjustments in the future?
7. When PG&E's NDDC Operator # 2 received the Troubleman's report at 14:43 p.m. of "at least one fuse blown at...17773" did NDDC Operator #2 consult SCADA data or consider whether any earlier reports of "current levels on two of the three phases in excess of the Minimum To Trip" were consistent with more than one blown fuse, indicating that the power to the Bucks Circuit should be turned off?
8. Why did NDDC Operator #2 keep the power on the Bucks Circuit after the Troubleman told him at 14:43 that he had seen a blown fuse, had difficulty reaching the Bucks Circuit area due to the bridge out, and had experienced difficulty communicating through radio, cell phone, or other methods?

B. Fault Signal Analysis and Evaluation

1. PG&E's President Patti Poppe reported to the CPUC on August 27, 2021, in response to CPUC President Batjer's letter expressing concern about PG&E's pattern of self-

reported failures that PG&E had implemented fast-trip settings for high-priority circuits in HFTDs [High Fire Threat Districts], which will quickly turn off the flow of power if a fault occurs (for example, if a foreign object contacts an energized line).

PG&E reported in Dkt. 1474, p.8, lines 18-28:

“Thus far, PG&E has implemented Fast Trip settings on high-risk circuit devices across more than 11,500 miles, or approximately 45% of, HFTDs. There have been a total of 279 unplanned outages on Fast Trip-enabled circuits between July 28, 2021 and September 14, 2021. During that same time, there have been only one CPUC-reportable ignition on those Fast Trip-enabled circuits, with no significant wildfires. PG&E believes this program has already prevented ignitions—in that time period, PG&E recorded a total of 20 CPUC-reportable ignitions in HFTDs (both on circuits that are Fast Trip enabled and on circuits that are not). That is an approximate 62% decline from that time period in 2020 when PG&E recorded CPUC reportable ignitions and 51% decline from that time period in 2018-2020 when PG&E recorded 41 CPUC-reportable ignitions on average”.

- a) Apart from shutting off power when a fast-trip setting is triggered, what has PG&E done to evaluate and learn from the source of triggers for fast-trip settings in HFTDs? If so, please describe PG&E’s analysis of these incidents and their lessons for its operation and practice.
- b) Based on information from its fast-trip triggers, has PG&E adjusted its vegetation management, informed its risk-based analysis, installed more cameras, or use more drones to facilitate inspection?

C. PG&E Outages in HFTDs

PG&E Dkt. 1477 states at p. 7, lines 22-26:

“While the troubleman testified that he could not eliminate the possibility that vegetation was on the line, the fact is that outages in HFTDs are extremely common. Indeed, approximately 1,125 transformer level and above outages have occurred in HFTDs in PG&E’s territory between May 10, 2021 and July 12, 2021. During that same time period, PG&E’s records indicate that there have been approximately 53 CPUC-reportable ignitions associated with PG&E’s electrical facilities.”

- 1. Amici understands “transformer level and above outages” to exclude outages involving service drops to customers or “behind the meter” customer outages. Is this consistent with PG&E’s definition of “transformer level and

above outages.” Why are customer service drops operated by PG&E excluded from this outage reporting? How many additional outages during the May 10, 2021-July 12, 2021 time period in HFTD are added by considering customer drop outages?

2. Describe what PG&E has done to determine the cause of outages in HFTD such as the “1,125 transformer level and above outages have occurred in HFTDs in PG&E’s territory between May 10, 2021 and July 12, 2021.”

3. Describe the steps PG&E has taken in response to such outages in HFTD to protect public safety and reduce the likelihood of ignitions.

4. Describe the 53 CPUC-reportable ignitions associated with PG&E’s electrical facilities between May 10, 2021 and July 12, 2021, their cause (tree limb on a line, etc.), and what PG&E did in response to these incidents to prevent fires in HFTDs or other areas.

D. Risk Ranking, Fault Notice, and Deenergization or Response Decisions

1. Does PG&E consider the circuit’s risk ranking when determining its response to a notice of fault or other hazard signal?

2. Did PG&E’s Distribution Operators #1 or #2 consult information about the risk ranking of the Bucks Circuit in evaluating whether to de-energize the line? PG&E Dkt. 1428-8 stated that the Bucks circuit received an elevated risk ranking to 11 out of 3,635. (PG&E Dkt. 1474, p. 4, lines 21-24). Was the Risk ranking available to NDD Operator #1 or #2.

3. Does SCADA include information about the risk ranking of a circuit? If not, why not? Has PG&E adjusted its SCADA or other information management systems to communicate circuit risk rankings to Distribution Operators or those responding to a notice of a fault?

4. Was information was available to PG&E's Troubleman about the Bucks Circuit risk ranking? Did he consider that circuit's risk ranking in determining and recommending a course of action?

E. PG&E Deenergization Decisions after Notice of Fault

PG&E Docket 1474, p. 2, lines 19-21 states "Distribution operators have authority to de-energize distribution circuits; hydro operators, roving hydro operators and dispatchers do not." *Id.* p. 3, lines 1-3 "Distribution operators have the decision-making power to de-energize lines, either by requesting a troubleman manually shut off the power by opening a switch, or by shutting off the power to the entire line at the substation remotely."

1. PG&E Dkt. 1474-8, p. 9, lines 9-11 states that PG&E's troubleman told NDDC Operator #1 acknowledged that it would take at "an least an hour and a half once you get on that shitty ass road to get to the fuses."...So the switch what they need to do is put a set of fuses at 641. It's right next to the highway..."

A. What was the rationale for PG&E's placement of the fuses in the area near the ignition point fire the Dixie Fire?

B. Did NDDC Operator #1 or #2 consider the difficulty of reaching the 17773 area in deciding to keep the Bucks Circuit energized despite the length of time needed to reach that Fuse?

C. Did PG&E have any drones or helicopters available in the area to do surveillance before the troubleman could arrive at the 17773 area? Why didn't PG&E use any nearby drones or helicopters to detect what occurred at the Bucks Circuit?

2) Did PG&E believe it would be safe to have a delay of approximately seven hours between the notice of fault at the 17773 area and the anticipated arrival of the troubleman?

a) If so, what was the basis for that belief taking into account the potential causes of such a fault and prevailing conditions including drought, dry trees

and vegetation, fungus spread, insect infestation, aging equipment, communications gaps in the area, etc.

b) The troubleman arrived at the 17773 area after 4:00 p.m. due to bridge closure delays, as reported in his statements and testimony. Did PG&E believe a delay of nearly 10 hours between the notice of fault at the 17773 area and the adjusted arrival of the troubleman would be safe? If so, what was the basis for that belief given the circuit's risk ranking, multiple indications of fault, and evidence of one or more blown fuses?

F. Assessment of Blown Fuses at Area 17773 and Decisions to Maintain Power on the Line

1. Did PG&E's Troubleman see any signs of vegetation or a tree on top of the line at the 17773 area? Did he attempt to follow the line with his binoculars? Did he see any depression in the line? Would the line where the tree fell in the 17773 area ordinarily have been visible from the Cresta Dam? Is the Troubleman who traveled to the 17773 area on the day of the Dixie Fire colorblind?
2. Did PG&E's Troubleman see one fuse blown from the Cresta Dam through his binoculars or more than one? Please provide a detailed diagram of the location of the fuses and photographs of the fuse locations. Please describe whether from the Troubleman's vantage at the Cresta Dam he should have been able to see one, two, or three fuses and their status.
3. PG&E's Troubleman testified at the September 13, 2021 hearing that he was familiar with the site at the 17773 area and had worked on the fuses previously. If the Troubleman saw at least one blown fuse from the Cresta Dam, did he believe it was safe to keep the power on when he knew it would take more than ninety minutes to reach the site once he got to the road leading there? If one fuse was blown, what was his understanding about the likelihood of a second blown fuse and thus the risk for single phasing?

4. PG&E 1474-12, p. line 11-14, PG&E's Troubleman reported to NDDC Operator # 2 at 14:43 p.m. "So I went to 805...I looked up the hill. There's a fuse blown. I can tell there's at least one fuse blown at...17773."

a. Did NDDC Operator # 2 consider whether to turn the power off after the Troubleman's report of visual confirmation of at least one blown fuse at area 17773?

b. What was NDDC Operator # 2's understanding of the risks of at least one blown fuse at area 17773? How did it affect that operator's assessment of "good load," load balance, or other factors affecting his judgment to maintain power flowing through the Bucks Circuit?

5) PG&E's Troubleman informed NDDC Operator # 2 at 14:43 p.m. of the additional difficulties he encountered in trying to reach area 17773 due to the bridge closure, and anticipated delays until he could get there.

a. In deciding to keep the Bucks Circuit power on after this report at 14:43, did NDDC Operator # 2 consider any factors such as the notice of a blown fuse, the length of time remaining to reach area 17773, the time since the first fault signals before 7:00 a.m., the number of fault signals received on SCADA, the Bucks Circuit risk ranking, or any other factors?

b. Please describe in detail the factors NDDC Operator # 2 considered in maintaining the power on under these circumstances.

6) PG&E Dkt. 1474-17, p. lines 14-22 reports a discussion at 14:22 p.m. between PG&E's Troubleman and NDDC Operator # 2 about a report of a "fire up in the canyon." PG&E's Troubleman told NDDC Operator # 2 "Sounds like you got a little fire up in the canyon though." *Id.* at lines 14-16. NDDC Operator # 2 stated "Yeah, I'm waiting to hear back on that one, see what's going on."

a. To which fire were they referring?

b. Is this distinct from the fire found at area 17773?

c. Are they referring to a fire or to a different type of problem?

d. Was there a report of a fire in area 17773 at 14:22 p.m. of which PG&E's

Troubleman, NDDC Operator # 2, or other PG&E personnel were aware?

IV. PG&E'S RESPONSE TO COMMUNICATIONS GAPS IN ITS SERVICE TERRITORY INCLUDING HFTDS

A) How long has PG&E known about the communications gaps near the Cresta Dam and Fuse 805 and the 17773 areas? PG&E 1474-12, p. 5 reports a discussion between PG&E Troubleman and NDDC Operator #2 about the Troubleman's attempts to radio PG&E and not hearing anything back. Each reports they radioed the other but did not connect. "Dixie Troubleman, Yeah, I called like three different times before I drove all the way out. ... NDDC Operator #2, I tried radioing back to you but never heard back..."

1) What, if anything, has PG&E done to provide connectivity in the places where radio and cell phone service do not work?

2) Does PG&E provide satellite phones to its Troubleman or other workers in areas with known communications gaps in its service territory?

B) Does the Cresta Dam have a landline telephone?

1) Was PG&E's Troubleman able to access the facilities at the Cresta Dam to make a telephone call or communicate via radio to PG&E personnel?

2) PG&E Dkt. 1474, p. 6, lines 9-10 states "According to his recollection, a roving operator (Roving Operator A) arrived at the Cresta powerhouse at approximately 7:00 a.m., logged in and called the switching center." Was the PG&E Troubleman able to communicate with Roving Operator A or to call the switching center from the Cresta Dam powerhouse?

3) Did PG&E provide the Troubleman with a key to the Cresta Dam facility office to be able to access a landline telephone or radio?

4) Do any of the roving Hydro operators have a key to the Cresta Dam facility office to be able to access a landline telephone or radio?

- 5) Did PG&E make an effort to connect its Troubleman with operators at the Cresta Dam or Hydro operators to access a landline telephone or radio at the Cresta dam or other hydro facilities?
- C) Does PG&E have plans to increase cameras or drones to be triggered by fault signals? What plans does PG&E have to increase its situational awareness in response to fault signals?
- D) Does PG&E primarily rely on dispatch of human personnel after fault signals? What risks are created by travel time for a person to inspect the area of a fault sign when the power is kept on after a fault signal?
- E) Describe steps PG&E has taken to inform customers in areas subject to multiple fast-trip faults of PG&E's new operational strategies. Describe steps to protect customer safety in those areas such as increased deployment of batteries and outreach to vulnerable customers including those on medical baseline and Critical Infrastructure customers.

V. SUGGESTED EVALUATION AND REPORT FOR PG&E'S MONITOR

A. Analysis of Causes of Multiple Transformer Level and Above Outages in HFTD

Amici respectfully suggest this Court request the Monitor to evaluate PG&E's record of transformer level and above outages in HFTDs for the 2019, 2020, and 2021 Fire Seasons. PG&E Dkt. No. 1477 states at page 7, lines 22-26, that "approximately 1,125 transformer level and above outages have occurred in HFTDs in PG&E's territory between May 10, 2021 and July 12, 2021. During the same time period, PG&E's records indicate there have been approximately 53 CPUC-reportable ignitions associated with PG&E's electrical facilities."

Amici respectfully recommend the Monitor examine PG&E's records regarding such outages and reportable ignitions associated with those outages. The Monitor may also consider looking at PG&E incident reports in non-HFTDs and below transformer level (e.g., from the transformer to the consumer). This analysis should identify causes of those outages and make recommendations to protect public safety and rehabilitate offender PG&E.

B. Analysis of the Causes of Fast Trip Settings and Recommendations

Following the Dixie Fire, PG&E “implemented Fast Trip settings on high risk circuit devices across more than 11,500 miles, or approximately 45% of, HFTDs.” (PG&E Dkt. 1474, p.8, lines 18-28). “There have been a total of 279 unplanned outages on Fast Trip-enabled circuits between July 28, 2021 and September 14, 2021. During the same time, there has been only one CPUC-reportable ignition on those Fast Trip-enabled circuits, with no significant wildfires. PG&E believes this program has already prevented ignitions—in that time period, PG&E recorded a total of 20 CPUC-reportable ignitions in HFTDs (both on circuits that are Fast Trip enabled and on circuits that are not). That is an approximate 62% decline from that time period in 2020 when PG&E recorded CPUC reportable ignitions and 51% decline from that time period in 2018-2020 when PG&E recorded 41 CPUC-reportable ignitions on average.”(*Id.*)

Amici respectfully recommend the Monitor evaluate PG&E’s Fast-Trip protocol and program. *Amici* recommend the Monitor examine the sources of those trip signals and recommend additional measures, aside from de-energization, to protect public safety, rehabilitate PG&E, and deter fire ignitions.

Amici respect the work the Monitor must accomplish before the end of PG&E’s probation term. *Amici* respectfully recommend this important evaluation and report by the Monitor as PG&E territory faces Red Flag dangers, ongoing extreme drought conditions, tree fungi spread, insect infestation, and hazards associated with the age of PG&E’s assets, network design, record-keeping, vegetation management, and operational practices.

Amici respectfully recommend this Court consider ordering PG&E to address the serious communications gaps in its service territory. Those communications gaps leave PG&E’s workers, including its Troubleman, unable to reach other PG&E personnel for an hour or more at a time via mobile phone or radio. Recommendations could include ordering PG&E to purchase and distribute satellite phones for its personnel in such areas and to erect mesh communications networks in those communications gap areas.

Amici also respectfully suggest the Monitor recommend steps to increase PG&E's situational awareness about the causes of its fast-trip signals. This might include, but should not be limited to, increasing use of cameras, sensors that can detect weight differences such as indicia of tree branches or vegetation on a line, increasing use of drones to inspect the source of a trip and the status of lines, or other measures to protect public safety and rehabilitate PG&E.

C. Analysis of PG&E Vegetation Management Including Inspection of Tree Roots and Circumference

Amici respectfully recommend the Monitor investigate and report on PG&E's vegetation management inspection practices. This includes analysis of whether PG&E's arborists and its vegetation management patrols inspect the side and circumference of trees tall enough to hit PG&E's lines or facilities or whether they inspect such trees from a distance. The report should examine whether PG&E inspects for dry rot or fungus the roots of trees tall enough to make contact with its lines and facilities.

The Monitor should make recommendations about PG&E vegetation management inspection processes and standards to protect public safety and rehabilitate felon PG&E.

VI. CONCLUSION

To protect public safety and promote felon PG&E's rehabilitation, *Amici* respectfully recommend the Court order PG&E to promptly and fully answer the question listed above. *Amici* also respectfully suggest topics for the Monitor to evaluate regarding the source of PG&E's apparently thousands of trips or faults in HFTDs and recommend steps to protect public safety and rehabilitate PG&E to address the sources of those trips and the causes of PG&E-ignited fires.

Respectfully submitted,

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